

Please type a plus sign (+) inside this box →

JAN 11 2002

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 5

Complete if Known

Application Number
Filing Date
First Named Inventor
Group Art Unit
Examiner Name
Attorney Docket Number

U.S. PATENT DOCUMENTS

Examiner Initials ¹	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		6,264,945		Fischetti et al.	07-24-2001	
		6,254,866		Fischetti et al.	07-03-2001	
		6,248,324		Fischetti et al.	06-19-2001	
		6,238,661		Fischetti et al.	05-29-2001	
		6,056,955		Fischetti et al.	05-02-2000	
		6,056,954		Fischetti et al.	05-02-2000	
		6,017,528		Fischetti et al.	01-25-2000	
		5,997,862		Fischetti et al.	12-07-1999	
		5,985,271		Fischetti et al.	11-06-1999	
		5,688,501		Menil et al.	11-18-1997	
		4,957,686		Norris	09-18-1990	
		5,604,109		Fischetti et al.	02-18-1997	
		5,882,631		Suga et al.	03-16-1999	
		5,741,487		Asai et al.	04-21-1998	
		6,113,887		Mori et al.	09-05-2000	
		4,422,158		Schmitt	10-24-1978	
		3,983,209		Schmitt	09-28-1976	
		6,113,887		Mori et al.	09-05-2000	
		4,885,163		Shaar et al.	12-05-1989	

FOREIGN PATENT DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Ts
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
			WO 97 02351 A		ICIBA GEIGY AG, et al.	01-23-1997		
			WO 96 07329 A		UNIV. MARYLAND	03-14-1996		
			EP 0 510 907 A		AGRICULTURAL & FOOD RES	10-28-1992		
			WO 99 04809 A		AMBI INC	02-04-1999		

Examiner
Signature

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

OIPE JC98
 JAN 11 2002
 POTENT & TRADEMARK OFFICE

+

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

(use as many sheets as necessary)

Sheet

2

of

5

Application Number

Filing Date

First Named Inventor

Group Art Unit

Examiner Name _____

Attorney Docket Number

[illegible][illegible]

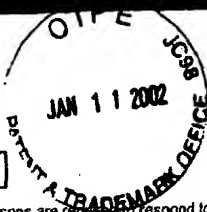
Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.**

Please type a plus sign (+) inside this box → ☐



PTO/SB/08B (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	
		Filing Date	
		First Named Inventor	
		Group Art Unit	1619 1652
		Examiner Name	BAWA
Sheet 3 of 5	Attorney Docket Number		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.†	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DS		Reisenger, et al. (1998) "Characterization of Escherichia coli lysis using a family of chimeric E-L Genes" <i>Fems Microbiol Letter.</i> 164(1) p.159-167	
		Sheehan MM, et al. (1997) "The lytic enzyme of the Pneumococcal Phage Dp-1: a chimeric lysis of intergeneric origin." <i>Mol. Microbiol.</i> 25(4) p. 717-725	
DS →		Young et al. (2000) "Phages will out: strategies of host cell lysis." <i>Trends in Microbiology.</i> 8(4) p. 120-127	
DS		Garcia et al.(1997) "The Pneumococcal cell wall degrading enzymes: A modular design to create new lysins?" <i>Microb. Drug Resist.</i> 3(2): p. 199-211	
		Sheehan MM, et al., (1997) "The Lytic Enzyme of the Pneumococcal Phage Dp-1: a Chimeric Lysin of Intergeneric Origin" <i>Mol. Microbiol.</i> 25(4) p. 717-25	
		Garcia P, et al. (1997) "Bacteriophages of <i>Streptococcus pneumoniae</i> : a molecular approach" <i>Microb. Drug Resist.</i> 3(20) 165-76.	
		Sheehan, MM, et al.(1996) "Analysis of the catalytic domain of the lysin of the lactococcal bacteriophage Tve2009 by chimeric gene assembling." <i>FEMS Microbiol.Lett.</i> 14(1): p. 23-28.	
		Sanz, JM, et al. (1996) "Construction of a multifunctional pneumococcal murein hydrolase by module assembly." <i>Eur. J. Biochem.</i> 235(3):601-5	
		Lopez R, et al. (1995) "Architecture and Domain Interchange of the Pneumococcal Cell Wall Lytic Enzymes" <i>Dev. Biol. Stand.</i> 85 p. 273-81.	

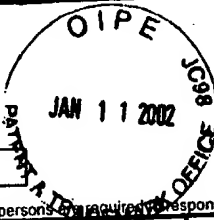
Examiner Signature		Date Considered	04-26-04
--------------------	--	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

† Unique citation designation number. ‡ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐



Approved for use through 10/31/2002. OMB 0651-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

4

of

5

Complete if Known

Application Number

Filing Date

First Named Inventor

Group Art Unit

Examiner Name

Attorney Docket Number

1619/652
BAWA

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Croux, et al.(1993) "Interchange of Functional Domains Switches Enzymes Specificity: Construction of a chimeric pneumococcal-clostridial cell wall lytic enzyme." <i>Mol. Microbiology</i> . 9(5) p. 1019-25.	
		Diaz, E. et al. (1990) "Chimeric phage-bacterial enzymes: a clue to the modular evolution of genes. <i>PNAS</i> . 87(20) p. 8125-9.	
		Diaz, E. et al.(1990) "Chimeric pneumococcal cell wall lytic enzymes reveal important physiological and evolutionary traits." <i>J. Biol. Chem.</i> 266(9) p. 5464-71.	
		Lopez, et al. (1997) "The pneumococcal cell wall degrading enzymes: A modular design to create new lysins?" <i>Microbiological Drug Resistance</i> . 3(2) p. 199-211.	
		Loessner, et al. (1999) "Evidence for a holin-like protein gene fully embedded out of frame in the endolysin gene of <i>Staphylococcus aureus</i> Bacteriophage." (1999) <i>Journal of Bacteriology</i> , 181(15) p. 4452-4460.	
		Witte, A et al. (1998) "Characterization of <i>Escherichia coli</i> lysis using a family of chimeric E-L genes." <i>FEMS Microbiol. Lett.</i> , 164(1), p. 159-167	
		Martin, Ana C et al (1998): "Functional analysis of the two-gene lysis system of the pneumococcal phage Cp-1 in homologous and heterologous host cells." <i>Journal of Microbiology</i> 180(2), p. 210-217	
		Oki Masaya et al. (1997) "Functional and structural features of the holin HOL protein of the <i>Lactobacillus plantarum</i> phage phi-gle: Analysis in <i>Escherichia coli</i> system." <i>Gene (AMSTERDAM)</i> 197(1-2) p 137-145.	

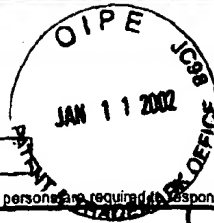
Examiner
Signature

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Please type a plus sign (+) inside this box →

PTO/SB/08B (08-00)
Approved for use through 10/31/2002. OMB 0651-0031

U. S. Patent and Trademark Office: U. S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	
		Filing Date	
		First Named Inventor	
		Group Art Unit	1619 1652
		Examiner Name	RAWA
Attorney Docket Number			
Sheet	5	of	5

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		Young, Ry et al. (2000) "Phages will out: strategies of host cell lysis." <i>Trends in Microbiology</i> , 8(3) p 120-127.	
		Nelson, et al. (2001) "Prevention and elimination of upper respiratory colonization of mice by Group A Streptococci by using a bacteriophage lytic enzyme." <i>PNAS</i> . 98 (7) p. 4107-4112	
		Garcia, et al. (1987) "Purification and biochemical characterization of the pneumococcal bacteriophage Cp-1 lysin." <i>Journal of Virology</i> 61(8) p. 2573-2586.	
		Loessner, et al. (1996) "Modified Listeria bacteriophage lysin genes (ply) allow efficient overexpression and one-step purification of biochemically active fusion proteins." <i>Applied and Environmental Microbiology</i> . 62(8) p. 3057-3060	

Examiner Signature	Date Considered
-----------------------	--------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

1449

JUN 11 2003

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0851-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1993, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 11

Complete if Known

Application Number	09/960,472
Filing Date	09/21/01
First Named Inventor	Vincent Fischetti
Group Art Unit	1652
Examiner Name	David J. Steadman
Attorney Docket Number	

RECEIVED

JUN 12 2003

TECH CENTER 1600/2900

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)				
DJS	1	US-	6056854	05/02/00	Fischetti, et al.	
	2	US-	5997802	12/07/99	Fischetti, et al.	
	3	US-	5985271	11/16/99	Fischetti, et al.	
	4	US-	5688501	11/18/97	Merril, et al.	
	5	US-	4742981	05/10/88	Converse	
	6	US-	2019789	11/05/35	Mahannah	
	7	US-	2783931	09/25/58	McMillan	
	8	US-	5479732	01/02/96	Burch, et al.	
	9	US-	3465445	09/09/69	Fisher	
	10	US-	2315280	03/30/43	Lancaster	
	11	US-	5604109	02/18/97	Fischetti, et al.	
	12	US-	5280292	11/09/93	Robinson, et al.	
	13	US-	4957686	09/18/90	Norris	
	14	US-	6017528	01/25/00	Fischetti, et al.	
	15	US-	6132970	10/17/00	Stemmer	
	16	US-	3852424	12/03/74	Gaeumann, et al.	
	17	US-	6264945	07/24/01	Fischetti, et al.	
	18	US-	6254866	07/03/01	Fischetti, et al.	
	19	US-	6248324	06/19/01	Fischetti, et al.	
	20	US-	6238661	05/29/01	Fischetti, et al.	

FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Country Code ² - Number ⁴ - Kind Code ⁵ (if known)					
DJS	21	EP-0510907 A 2		10/28/92	Agricultural & Food Res.		
	22	WO-9702351		01/23/97	CIBA Geigy AG, et al.		
	23	WO-9607329		03/14/96	Univ. Maryland		
	24	WO-9904809		02/04/99	Ambi, Inc.		
	25	FR-2357246		02/03/78	Martinez		
	26	WO-9531562		11/23/95	Quest International B.V.		
	27	EP-587541 A1		03/16/94	Tecnogen ScpA		
DJS							

Examiner
SignatureDate
Considered

04-26-04

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04.³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

+

JUN 11 2003

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

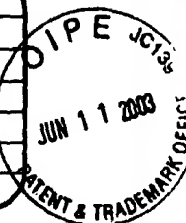
**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 2 of 11

Complete if Known

Application Number	09/960,472
Filing Date	09/21/01
First Named Inventor	Vincent Fischetti
Group Art Unit	1652
Examiner Name	David J. Steadman
Attorney Docket Number	

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. 1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code 2 (if known)			
DJS	28	US- 6056955	05/02/00	Fischetti, et al.	
	29	US- 5882631	03/16/99	Suga, et al.	
	30	US- 5741487	04/21/98	Asai, et al.	
	31	US- 6113887	09/05/00	Mori, et al.	
	32	US- 4122158	10/24/78	Schmitt	
	33	US- 3983209	09/28/76	Schmitt	
	34	US- 4885163	12/05/89	Shaar, et al.	
	35	US- 6177554	01/23/01	Woo, et al.	
	36	US- 6187757	02/13/01	Clackson, et al.	
	37	US- 5162226	11/10/92	Beachey, et al.	
	38	US- 6335012	01/01/02	Fischetti, et al.	
	39	US- 6326002	12/04/01	Fischetti, et al.	
	40	US- 6277399	08/21/01	Fischetti, et al.	
	41	US- 4082941	12/13/77	Davies	
	42	US- 5571687	11/05/96	Chu, et al.	
	43	US- 5514602	05/07/96	Brooks Jr, et al.	
	44	US- 5500350	03/19/96	Baker, et al.	
	45	US- 5384265	01/24/95	Kidwell, et al.	
DJS	46	US- 4361537	11/30/82	Deutsch, et al.	
	47	US- 5120643	06/09/92	Ching, et al.	

RECEIVED
JUN 12 2003
TECH CENTER 1600/2900**FOREIGN PATENT DOCUMENTS**

Examiner Initials *	Cite No. 1	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ²
		Country Code 3 - Number 4 - Kind Code 6 (if known)				
DJS	48	WO-9323544	11/25/93	The University Court of the University of Glasgow		
	49	EP-0293249 A1	11/30/88	Amrad Corporation Limited		
	50	EP-0646646 A2	04/05/95	Bristol-Myers Squibb Company		
DJS	51	EP-0359873 A1	03/28/90	The Public Health Research Inst. of the City of New York		

Examiner
SignatureDate
Considered

04-26-04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 3 of 11

Complete if Known

Application Number	09/960,472
Filing Date	09/21/01
First Named Inventor	Vincent Fischetti
Group Art Unit	1652
Examiner Name	David J. Steadman
Attorney Docket Number	

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
DJS	52	US-4948726	08/14/90	Longoria	
	53	US- 4459381	07/10/84	Gelfer	
	54	US- 4552839	11/12/85	Gould, et al.	
	55	US- 4313734	02/02/82	Leuversing	
	56	US- 4847189	07/11/89	Snyder, et al.	
	57	US- 4497900	02/05/85	Abram, et al.	
	58	US- 4707543	11/17/87	Zollinger, et al.	
	59	US- 5763251	06/09/98	Gasson	
	60	US- 6159688	12/12/00	Borchert, et al.	
	61	US- 4784948	11/15/88	Scott, et al.	
	62	US- 5760026	06/02/98	Blackburn, et al.	
	63	US- 5602040	02/11/97	May, et al.	
	64	US- 4521252	06/04/85	Miyake, et al.	
	65	US- 4355022	10/19/82	Rabussay	
	66	US- 4115546	09/19/78	Vidra, et al.	
	67	US- 4116327	09/26/78	Eglinton, et al.	
	68	US- 3929994	12/30/75	Hirsch, et al.	
	69	US- 6083684	07/04/00	Gasson	
	70	US- 5360617	11/01/94	Gasson	
	71	US- 5079174	01/07/92	Buck, et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Country Code ² - Number ⁴ - Kind Code ⁵ (if known)				

Examiner
Signature

DJS

Date
Considered

04-26-04

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04.

³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.



RECEIVED
JUN 12 2003
TECH CENTER 1600/2900

³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08B(10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	5	of	11
-------	---	----	----

Complete if Known

Application Number	09/960,472
Filing Date	09/21/01
First Named Inventor	Vincent Fischetti
Group Art Unit	1652
Examiner Name	David J. Steadman
Attorney Docket Number	

RECEIVED

JUN 12 2003

TECH CENTER 1600/2900

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

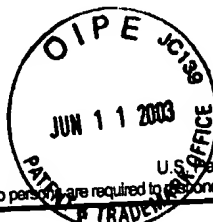
[illegible]

**Examiner
Signature**

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08B(10-01)

Approved for use through 10/31/2002. OMB 0851-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 6 of 11

Complete If Known

Application Number	09/960,472
Filing Date	09/21/01
First Named Inventor	Vincent Fischetti
Group Art Unit	1652
Examiner Name	David J. Steadman
Attorney Docket Number	

RECEIVED

JUN 12 2003

TECH CENTER 1600/2900**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DIS	84	BABENKO et al. Enzymatic lysis of staphylococci in relation to their species and strain properties, 1990, Database Medline Online, US National Library of Medicine, Bethesda, MD, US, Database Accession No. 90297672 XP002170795, abstract only	
	85	BARTELL, et al., Origin of polysaccharide depolymerase associated with bacteriophage infection, Journal of Virology, March 1969, pp. 290-296, Vol. 3, No. 3	
	86	BEHNKE, et al., Cloning and expression in Escherichia coli, Bacillus subtilis and Streptococcus sanguis of a gene for staphylokinase - a bacterial plasminogen activator, Mol Gen Genet, December 1987, pp. 528-534, Vol. 210	
	87	BESSEN, et al., Chemical characterization of binding properties of opacity-associated protein II from Neisseria gonorrhoeae, Infection and Immunity, January 1987, pp. 141-147, Vol. 55, No. 1	
	88	BIZIULEVICHUS, et al., In vivo studies on lysostaphin: 3. Efficacy for treatment of mastitis and superficial lesions of the udder and teats in cows, 1998, Database Biosis Online, Biosciences Information Service, Philadelphia, PA, US, Database Accession No. PREV199800492606, XP002183274, abstract only	
	89	BOIZET, et al., Cloning, expression and sequence analysis of an endolysin-encoding gene of Lactobacillus bulgaricus bacteriophage mv1, Gene, 2000, pp. 61-67, Vol. 94	
	90	CALDWELL, et al., Purification and partial characterization of the major outer membrane protein of Chlamydia trachomatis, Infection and Immunity, March 1981, pp. 1161-1176, Vol. 31, No. 3	
	91	YOUNG et al. Phages will out: strategies of host cell lysis, Trends in Microbiology, Volume 8 No. 3, March 2000, pp 120-127	
	92	CORBEL, et al., Soluble antigens obtained from influenza virus by treatment with non-ionic detergent, J Hyg. Camb., 1970, pp. 81-96, Vol. 68	
	93	CROUX, et al., Interchange of functional domains switches enzymes specificity: construction of a chimeric pneumococcal-clostridial cell wall lytic enzyme, Molecular Microbiology, 1993, pp.1019-25, Vol. 9, No. 5	
DIS	94	DIAZ, et al., Chimeric phage-bacterial enzymes: a clue to the modular evolution of genes, Proc. Natl. Acad. Sci. USA, October 1990, pp. 8125-8129, Vol. 87	

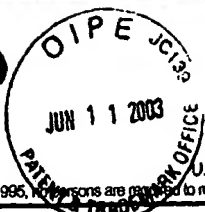
Examiner Signature

Date Considered

04-26-04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08B(10-01)

Approved for use through 10/31/2002. OMB 0851-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 7 of 11

Complete if Known

Application Number	09/960,472
Filing Date	09/21/01
First Named Inventor	Vincent Fischetti
Group Art Unit	1652
Examiner Name	David J. Steadman
Attorney Docket Number	

RECEIVED JUN 12 2003 TECH CENTER 1600/2900

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DJS	95	DIAZ, et al., Chimeric pneumococcal cell wall lytic enzymes reveal important physiological and evolutionary traits, Journal of Biological Chemistry, March 25, 1991, pp. 5464-5471, Vol. 266, No. 9	
	96	DIXON, et al., Lysostaphin: an enzymatic approach to staphylococcal disease. III. Combined lysostaphin-methicillin therapy of established staphylococcal abscesses in mice, The Yale Journal of Biology and Medicine, August 1968, pp. 62-68, Vol. 41, No. 1	
	97	FISCHETTI, et al., Size variation of the M protein in group A streptococci, Journal of Exp. Med., June 1, 1985, pp. 1384-1401, Vol. 161, No. 6	
	98	GARCIA, et al., Bacteriophages of Streptococcus pneumoniae: A molecular approach, Microbial Drug Resistance, Summer 1997, pp. 165-176, Vol. 3, No. 2	
	99	GARCIA, et al., Cloning, purification and biochemical characterization of the pneumococcal bacteriophage Cp-1 lysin, Journal of Virology, August 1987, pp. 2573-2580, Vol. 61, No. 8	
	100	GARCIA, et al., Modular organization of the lytic enzymes of streptococcus pneumoniae and its bacteriophages, Gene, 1990, pp. 81-88, Vol. 86	
	101	GERARDY-SCHANN, et al., Molecular cloning and functional expression of bacteriophage PK1E-encoded endoneuraminidase Endo NE, Molecular Microbiology, May 1995, pp. 441-450, Vol. 16, No. 3	
	102	GOLDBERG, et al., Studies in experimental staphylococcal endocarditis in dogs, Antimicrobial Agents and Chemotherapy, 1987, pp. 45-53	
	103	HARRISON, et al., Lysostaphin in experimental renal infections, Journal of Bacteriology, February 1987, pp. 520-524, Vol. 93, No. 2	
	104	HARRISON, et al., Therapeutic activity of lysostaphin in experimental staphylococcal infections, Canadian Journal of Microbiology, January 1987, pp. 93-97, Vol. 13, No. 1	
DJS	105	HAYASHI, et al., Effects of N-Acetylmuramidase from Streptomyces rutgersensis H-48 as a food preservative, Agric. Biol. Chem., December 1989, pp. 3173-3177, Vol. 53, No. 12	

Examiner Signature		Date Considered	04-26-04
--------------------	--	-----------------	----------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08B(10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 8 of 11

Complete if Known

Application Number	09/960,472
Filing Date	09/21/01
First Named Inventor	Vincent Fischetti
Group Art Unit	1652
Examiner Name	David J. Steadman
Attorney Docket Number	

RECEIVED
JUN 2 2003
TECH CENTER 1600/2900**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DJS	106	HAYASHIDA, et al., Further characterization of PL-1 phage associated N-acetylmuramidase of Lactobacillus casei, Journal of General Microbiology, May 1987, pp. 1343-1349, Vol. 133, No. 5	
	107	HIGUCHI, et al., Transfection of streptococcus sanguis by phage deoxyribonucleic acid isolated from streptococcus mutans, Infection and Immunity, March 1977, pp. 945-949, Vol. 15, part 3	
	108	HUAN, et al., Methicillin-resistant staphylococcus aureus infection and its treatment in burned patients, Chinese Journal of Surgery, 1994, Vol. 32, No. 4, abstract	
	109	HUGHEY, et al., Antimicrobial activity of lysozyme against bacteria involved in food spoilage and food-borne disease, Applied and Environmental Microbiology, September 1987, pp. 2165-2170, Vol. 53, No. 9	
	110	KOHLER, Systemic therapy with aerosols Aerosols in Medicine: Principles, Diagnosis and Therapy, 1993, Elsevier Science Publishers, pp. 303-319	
	111	LAWMAN, et al., Molecular cloning of the extracellular endodextranase of streptococcus salivarius, Journal of Bacteriology, December 1991, pp. 7423-7428, Vol. 173, No. 23	
	112	LOESSNER, et al., Evidence for a holin-like protein gene fully embedded out of frame in the endolysin gene of staphylococcus aureus bacteriophage 187, Journal of Bacteriology, August 1999, pp. 4452-4460, Vol. 181, No. 15	
	113	LOESSNER, et al., Modified listeria bacteriophage lysis genes (ply) allow efficient overexpression and one - step purification of biochemically active fusion proteins, Applied and Environmental Microbiology, August 1996, pp. 3057-3060, Vol. 62, No. 8	
	114	LOPEZ, et al., Architecture and domain interchange of the pneumococcal cell wall lytic enzymes, Genetics of Streptococci, Enterococci and Lactococci, Developments in Biological Standardization, 1995, pp. 273-281, Vol. 85	
	115	LOPEZ, et al., The pneumococcal cell wall degrading enzymes a modular design to create new lysins, Microbial Drug Resistance, November 2, 1997, pp. 199-211, Vol. 3, No. 2	
DJS	116	MARTIN, et al., Functional analysis of the two-gene lysis system of the pneumococcal phage Cp-1 in homologous and heterologous host cells, Journal of Bacteriology, January 1998, pp. 210-217, Vol. 180, No. 2	

Examiner
SignatureDate
Considered

04-26-04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08B(10-01)

Approved for use through 10/31/2002. OMB 0851-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO		Complete if Known			
		Application Number	09/960,472		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Filing Date	09/21/01		
		First Named Inventor	Vincent Fischetti		
		Group Art Unit	1652		
		Examiner Name	David J. Steadman		
Sheet	9	of	11	Attorney Docket Number	

RECEIVED

JUN 12 2003

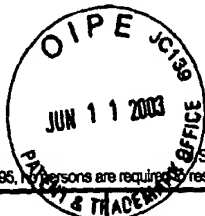
TECH CENTER 1600/2900

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DIS	117	MUKHLIS, et al., Characterization and Immunogenicity of HSV-1 antigens obtained following zwitterionic detergent treatment; Vaccine, September 1988, pp. 191-196, Vol. 4	
	118	NELSON, et al., Prevention and elimination of upper respiratory colonization of mice by group A streptococci by using a bacteriophage lytic enzyme, PNAS, March 27, 2001, pp. 4107-4112, Vol. 98, No. 7	
	119	NELSON, et al., Selective and rapid killing of group A streptococci using a muralytic enzyme, Database Biosis Online, Biosciences Information Service, Philadelphia, PA, US and abstracts of the General Meeting of the American Society for Microbiology, 2000, pp. 32-33	
	120	OKI, et al., Functional and structural features of the holin HOL protein of the Lactobacillus plantarum phage analysis in escherichia coli system, Gene, 1997, pp. 137-145, Vol. 197	
	121	OKUHARA, et al., Preparation of group A streptococcal cell membranes by treatment with group C streptococcus phage - associated lysin, Annales Paediatrici Japonici, June 1983, pp. 10-19, Vol. 29, No. 2	
	122	PATTON, et al., Routes of delivery: case studies, Pulmonary delivery of peptides and proteins for systemic action, Advanced Drug Delivery Reviews, 1992, pp. 179-198, Vol. 8	
	123	POLAK, et al., In vitro activity of recombinant lysostaphin-antibiotic combinations toward methicillin-resistant staphylococcus aureus, Diagn. Microbiol. Infect. Dis., 1993, pp. 265-270, Vol. 17	
	124	RAINA, Purification of streptococcus group C bacteriophage lysin, Journal of Bacteriology, January 1981, pp. 861-863, Vol. 145, No. 1	
	125	RONDA, et al., Infection of streptococcus oralis NCTC 11427 by pneumococcal phages, FEMS Microbiology Letters, 1989, pp. 187-192, Vol. 65	
	126	SANZ, et al., Construction of a multifunctional pneumococcal murein hydrolase by module assembly, Eur. J. Biochem., February 1, 1996, pp. 601-605, Vol. 235, No. 3	
DIS	127	SATO, et al., Partial characterization of n - Butanol - solubilized rejection - type antigens of syngeneic murine colon tumors, JNCI, April 1985, Vol. 74, No. 4	

Examiner Signature		Date Considered	04-26-04
--------------------	--	-----------------	----------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08B(10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Complete if Known

Application Number	09/960,472
Filing Date	09/21/01
First Named Inventor	Vincent Fischetti
Group Art Unit	1652
Examiner Name	David J. Steadman
Attorney Docket Number	

Sheet 10 of 11

RECEIVED
JUN 12 2003
TECH CENTER 1600/2900**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
DS	128	SHEEHAN, et al., Analysis of the catalytic domain of the lysis of the lactococcal bacteriophage Tuc2009 by chimeric gene assembling; FEMS Microbiology Letters, 1996, pp. 23-28, Vol. 140	
	129	SHEEHAN, et al., The lytic enzyme of the pneumococcal phage Dp-1: A chimeric lysis of intergeneric origin, Molecular Microbiology, 1997, pp. 717-725	
	130	WITTE, et al., Characterization of escherichia coli lysis using a family of chimeric E-L genes, FEMS Microbiology Letters, 1998, pp. 159-167, Vol. 164	
	131	YARNALL, et al., Isolation and partial characterization of a type II Fc receptor from a group A streptococcus, Molecular and Cellular Biochemistry, 1988, pp. 57-66, Vol. 70	
DS	132	CISANI, et al., High-level potentiation of lysostaphin anti-staphylococcal activity by lysozyme, Antimicrobial Agents and Chemotherapy, April 1982, pp. 531-535, Vol.21, No. 4	

Examiner
SignatureDate
Considered

04-26-04

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.


Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known

(use as many sheets as necessary)

Sheet	11	of	11
-------	----	----	----

Application Number	09/960,472
Filing Date	09/21/01
First Named Inventor	Vincent Fischetti
Group Art Unit	1652
Examiner Name	David J. Steadman
Attorney Docket Number	



Examiner Initials *	Cite No.	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
DJS	133	US-5605793	02/25/97	Stemmer	
	134	US- 6355477	03/12/02	Fischetti et al	
	135	US- 6331405	12/18/01	Rambukkana et al	
	136	US- 6190659	02/20/01	Pancholi et al	
	137	US- 5985654	11/18/99	Fischetti et al	
	138	US- 5842314	11/24/98	Scott et al	
	139	US- 5910441	06/08/99	Rocha et al	
	140	US- 5786205	07/28/98	Fischetti et al	
	141	US- 5976792	11/02/99	Cheung et al	
	142	US- 5821088	10/13/98	Darzens et al	
	143	US- 5723303	03/03/98	Fischetti et al	
	144	US- 5643767	07/01/97	Fischetti et al	
	145	US- 5707822	01/13/98	Fischetti et al	
	146	US- 5616686	04/01/97	Fischetti et al	
KJS	147	US- 5604109	02/18/97	Fischetti et al	
	148	US- 5587288	12/24/96	Cheung et al	
	149	US- 5556944	09/17/96	Fischetti et al	
	150	US- 5352588	10/04/94	Fischetti et al	
	151	US- 5968763	10/19/99	Fischetti et al	
	152	US- 4784948	11/15/88	Scott et al	

Messages of relevance
 Figures Appear

RECEIVED
 JUN 12 2003
 TECH CENTER 1600/2900

[illegible]

**Examiner
Signature**

Date Considered

04-26-04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04.
³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

RECEIVED

JAN 18 2001

LIST OF NEW HORIZON PATENTS AND PATENT APPLICATIONS

P 1

TECH CENTER 1600/2900

Patent/Application No.

Country

Filing Date

Issue Date

Inventors

Title

US

Pat. No. 5,604,109

U.S.A.

09-13-94

02-18-97

Fischetti

A Method for Exposing Group A Streptococci Antigens and an Improved Diagnostic Test for the Identification of Group Streptococcus.

US

Pat. No. 5,997,862
App No. 09/962,523

U.S.A.

10-31-97

12-7-99

Fischetti
Loomis

Therapeutic treatment of Group A Streptococcal Infections

US

Pat. No. 6,017,528
App No. 09/257,025
(Cert. of Correction)

U.S.A.

02-25-99

01-25-00

Fischetti
Loomis

Therapeutic Treatment of Group A Streptococcal Infections

US

Pat. No. 5,985,271
No. 09/257,026
(Cert. of Correction)

U.S.A.

02-25-99

11-16-99

Fischetti
Loomis

Prophylactic and Therapeutic Treatment of App of Group A Streptococcal Infections

US

Pat. No. ~~6,506,954~~ 6,506,954
App. No. 09/395,636
(Cert. of Correction)

U.S.A.

09-14-99

05-02-00

Fischetti
Loomis

Use of Bacterial Phage Associated Lysing Enzymes for the Prophylactic and Therapeutic Treatment of Various Illnesses

US

Pat. No. 6,238,661
App. No. 09/497,495

U.S.A.

04-18-00

05-29-01

Fischetti
Loomis

Use of Bacterial Phage Associated Lysing Enzymes for Treating Various Illnesses

US

Pat. No. 6,264,945
App. No. 09/482,992

U.S.A.

01-14-00

07-24-01

Fischetti
Loomis

Parenteral Use of Bacterial Phage Associated Lysing Enzymes for the Therapeutic

04-26-04

Treatment of Bacterial Infections

US Pat. No. 6,056,955 U.S.A. 09-14-99 05-02-00 Fischetti Topical Treatment of Streptococcal
App. No. 09/395,637 Loomis Infections

US App. No. 09/654,484 U.S.A. 09-01-00 Trudi The Use of Phage Associated Lytic Enzymes
For the Rapid Detection of Bacterial

US App. No. 09/654,483 U.S.A. 09-01-00 Fischetti A Composition for Treatment of A
Loomis Bacterial Infection of An Upper
Respiratory Tract

US Pat. No. 6,254,866 U.S.A. 09-01-00 07-03-01 Fischetti Use of Phage Associated Lytic Enzymes
App. No. 09/653,690 Loomis For Treating Bacterial Infections of the
Digestive Tract

US App. No. 09/654,482 U.S.A. 09-01-00 Fischetti A Composition for Treatment of a Bacterial
Loomis Infection of the Digestive Tract

US Pat. No. 6,277,399 U.S.A. 09-28-00 08-21-01 Fischetti Compositions Incorporating Bacterial
App. No. 09/671,882 Loomis Phage Associated Lysing Enzymes For
Treating Dermatological Infections

US App. No. 09/671,881 U.S.A. 09-28-00 Fischetti A Composition for Treatment of Vaginal
Loomis Bacterial Infections

US App. No. 09/671,880 U.S.A. 09-28-00 Fischetti A Composition for Treatment of An
Loomis Ocular Bacterial Infection

US Pat. No. 6,248,324 U.S.A. 09-28-00 06-19-01 Fischetti Bacterial Phage Associated Lysing

JS

04-26-04

~~US~~ App. No. 09/671,879 ~~Loomis~~ Enzymes for Treating Dermatological Infections

~~US~~ App. No. 09/671,878 ~~U.S.A.~~ 09-28-00 ~~Fischetti~~ The Use of Bacterial Phage Associated
~~Loomis~~ Lytic Enzymes for Treating
Dermatological Infections

~~US~~ App. No. 09/671,991 ~~U.S.A.~~ 09-28-00 ~~Fischetti~~ A Composition for Treating Dental
~~Loomis~~ Caries Caused by Streptococcus Mutans

~~US~~ Pat. No. 6,335,012 ~~U.S.A.~~ 09-28-00 01-01-02 ~~Fischetti~~ A Method for Treating Dental Caries
App. No. 09/671,992 ~~Loomis~~ Caused by Streptococcus Mutans

NOTE: THE USPTO PRINTED THE WRONG TITLE AND THE WRONG CLAIMS

~~US~~ Pat. No. 6,326,002 ~~U.S.A.~~ 09-28-00 12-04-01 ~~Fischetti~~ The Use of Bacterial Phage Associated
App. No. 09/671,990 ~~Loomis~~ Lysing Enzymes for Treating Bacterial
Infections of the Upper Respiratory
System

~~US~~ App. No. 09/704,148 ~~U.S.A.~~ 11-02-00 ~~Fischetti~~ The Use of Bacterial Phage Associated
~~Loomis~~ Lytic Enzymes to Prevent Food
Poisoning

~~US~~ App. No. 09/560,650 ~~U.S.A.~~ 04-28-00 ~~Fischetti~~ The Use of Bacterial Phage
~~Loomis~~ Associated Lysing Enzymes for the
Prophylactic and Therapeutic
Treatment of Various Illnesses

~~US~~ App. No. 09/752,731 ~~U.S.A.~~ 01-03-01 ~~Fischetti~~ The Parental Use of Bacterial Phage
~~Loomis~~ Associated Lysing Enzymes For The
Lysing Enzymes for the Therapeutic

AS

04-26-04

Treatment of Bacterial Infections

~~DJS~~ App. No. 09/932,460 U.S.A. 07-13-01 Fischetti Loomis The Use of Bacterial Phage Associated Lysing Enzymes for Treating Various Illnesses

~~DJS~~ Prev. No. 60/324,089 U.S.A. 09-24-01 Fischetti Loomis The Use of Bacterial Shufflet and Chimeric Phage Associated Lytic Enzymes for the Prophylactic and Therapeutic Treatment of Colonization and Infections caused By *Streptococcus Pneumoniae*

~~DJS~~ App. No. 09/960,472 U.S.A. 09-24-01 Fischetti Loomis The Use of Bacterial Phage Associated Lysing Enzymes for the Prophylactic and Therapeutic Treatment of Colonization and Infections Caused by *Streptococcus pneumoniae*

~~DJS~~ App. No. 09/908,737 U.S.A. 07-19-01 Fischetti Loomis Parenteral Use of Bacterial Phage Associated Lysing Enzymes for the Therapeutic Treatment of Bacterial Infections

~~DJS~~ App. No. 09/910,940 U.S.A. 07-13-01 Fischetti Loomis The Use of Bacterial Phage Associated Lytic Enzymes to Prevent Food Poisoning

~~DJS~~ App. No. 09/844,435 U.S.A. 04-30-01 Fischetti Loomis The Use of Bacterial Phage Associated Lysing Enzymes For

AS

04-26-04

Treating Various Illnesses

DLS App. No. 09/846,688 U.S.A. 05-02-01

~~Fischetti~~
Loomis
The Use of Bacterial Phage
Associated Lysing Proteins for the
Prophylactic and Therapeutic
Treatment of Various Illnesses

DLS PCT/US99/04063 PCT 02-25-99

Fischetti
Loomis
A Means for the Prophylactic and
Therapeutic Treatment of
Streptococcal Infections

~~N/A~~
~~99909595.3~~
~~2000-600679~~
~~2001126302~~
~~not yet filed~~
~~P19917152-0~~
~~514260~~
~~2001-700898~~
~~200105279-4~~
~~N/A~~
~~145087~~
~~28767799~~
~~N/A~~

~~INDIA~~
~~EPO~~
~~JAPAN~~
~~RUSSIAN FEDERATION~~
~~POLAND~~
~~BRAZIL~~
~~NEW ZEALAND~~
~~NORTH KOREA~~
~~SINGAPORE~~
~~CANADA~~
~~ISRAEL~~
~~AUSTRALIA~~
~~CHINA~~

US
04-26-04